

Name _____ Date _____ Hour _____

Chapter 6 Practice Test

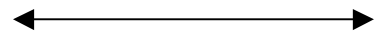
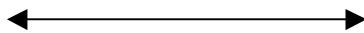
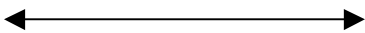
6.1 Solving One-Step Linear Inequalities

Solve and graph each inequality.

1. $x + 9 \geq 10$

2. $-2c < 12$

3. $-x + 4 \geq 7$

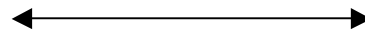
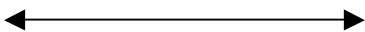


6.2 Solving Multi-Step Linear Inequalities

Solve and graph each inequality.

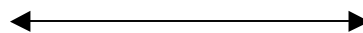
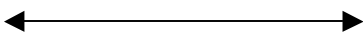
4. $5x - 2 \leq 3(x + 3)$

5. $4x - 5 > 2(x + 1)$



6. $2x + 5 > 1 - 2x$

7. $-2x + 8 < 3x + 10$



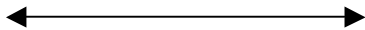
8. Sean earns \$8.50 an hour working after school. He wants to buy an iPod that costs \$185. Write an inequality that describes how many hours he must work to reach his goal. How many hours must he work to earn at least \$185?

6.3 Solving Compound Inequalities

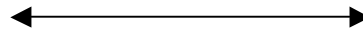
Solve the inequality and graph.

9. $-4 \leq 2x - 6 \leq 4$

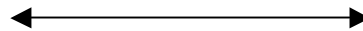
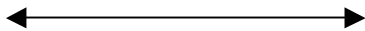
10. $2x + 3 < 1$ or $3x - 5 > -2$



11. $-12 \leq -3x + 12 \leq 15$



12. $4x - 1 > 7$ or $5x - 1 < -6$



13. On a road in the city of Rochester, the maximum speed is 65 miles per hour and the minimum speed is 30 miles per hour. Write an inequality describing the speed limit.

6.4 Solving Absolute-Value Equations and Inequalities

Solve each equation. **SHOW ALL WORK!**

14. $|x - 6| = 2$

15. $|2x - 7| - 5 = 4$

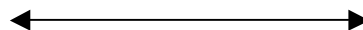
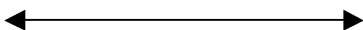
16. $9 = |6x - 1| + 4$

17. $|3x + 2| + 2 = 5$

Solve each inequality and graph. **SHOW ALL WORK!**

18. $|x + 8| > 2$

19. $|3x - 3| \leq 4$



20. $|3x - 3| + 4 \geq 10$

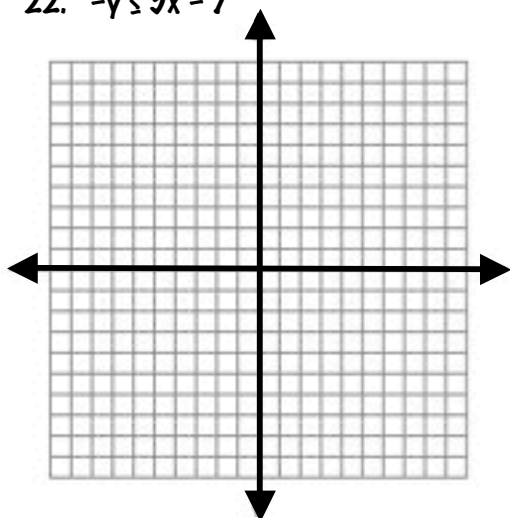
21. $|2x + 5| - 1 < 6$



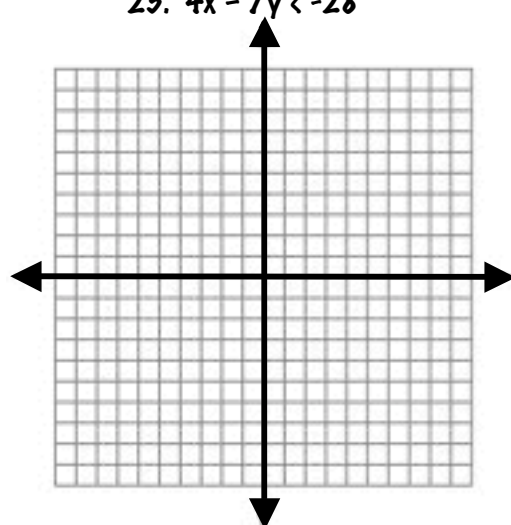
6.5 Graph Linear Equations in Two Variables

Sketch the graph of the inequality.

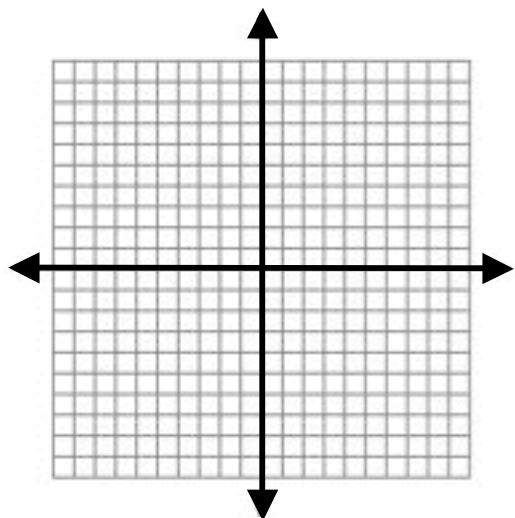
22. $-y \leq 5x - 7$



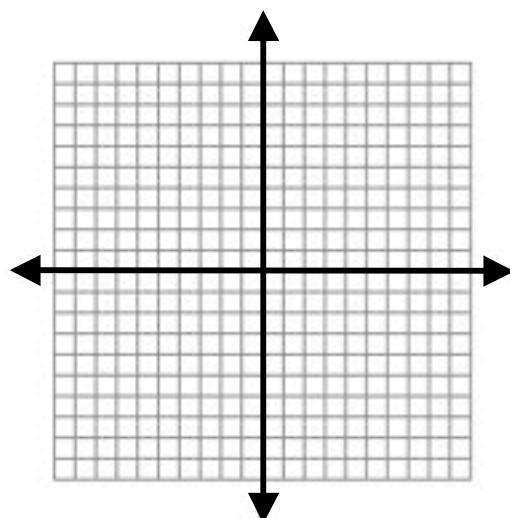
23. $4x - 7y < -28$



24. $x - y \geq -1$



25. $4x + 3y \leq 24$



6.6 Stem-and-Leaf Plots and Mean, Median, and Mode

26. Construct a stem-and-leaf plot for the following 8th grade algebra chapter 6 test data:

89, 95, 70, 83, 99, 74, 93, 95, 81, 90, 91

27. Find the mean, median, and mode of the test data from question #26. Which measure of central tendency best represents the data? Explain your answer.

6.7 Box-and-Whisker Plots

28. Create a box-and-whisker plot of the test data from question #26. Label all quartiles, extremes and the median.